Like extreme pressure forms diamonds, hot summer fires have shaped California’s wooded landscapes and native plants over the years. Whether set by lightning strikes during our dry hot summer months or by human activity, seasonal fires have swept through our forests countless times. These wildfires are a seasonal pressure that we are only beginning to understand. Here in northern California, forest fires can bring to life a real gem: the rare fire-following hollyhock known as Baker’s globe mallow.

During my first summer working as a botanist in the timber industry here, I came across this beautiful flowering shrub on a recently burned ridgetop west of Interstate 5. The showy rose-purple flowers of this plant literally stopped me in my tracks. I hopped out of the truck for some quick photos and to collect some of the flowers, which were distinctly of the Malvaceae, or mallow, plant family. Much like hibiscus, these flowers have many stamens that radiate from a long tube surrounding the central style. Back at the office,
I ran it through the Malvaceae key more than once and confirmed that it was indeed the rare Baker’s globe mallow, or *Iliamna bakeri*. *Iliamna* is from a Native Alaskan word meaning “island’s lake,” and *bakeri* is in honor of the northern California botanist, Milo Samuel Baker. Baker was the first to collect the plant, which he found in 1898 in Modoc County.

Baker’s globe mallow is found in the northern California and southern Oregon region. It has been observed in this geographic range as an early successional species following forest fires. The blooms are generally pollinated by bumblebees, but fertile seeds can occasionally be produced through self-pollination. Populations of Baker’s globe mallow have been estimated in the millions after large fires, but they decline over time into a dormant state, then only to be found underfoot in the seed bank. Most impressive, though, is that this plant has been found growing in places where fires have not occurred in 100 years, indicating that the seeds can lie dormant for incredibly long periods of time.

Unlike garden plants, many plants in the forest setting produce seeds that often require some type of exposure to help them germinate. Scarification and stratification are types of exposure that seeds of some species must go through in order to break their dormancy.

Some naturally occurring examples of these types of exposure are: exposure to cold winter temperatures, passing through the acidic digestive tracts of some animals, exposure to heat from intense forest fires, and even exposure to the specific chemicals found in smoke. These requirements can be an incredibly valuable asset to plants in the forest setting because they help them to come to life only under the right circumstances and season of the year.
Once the seed breaks dormancy and water is absorbed, the embryo and surrounding tissues slowly swell and begin a phase of rapid cell division. It is easy to overlook the power of water absorption (osmosis) in this process, but that is the force that finally breaks away the hardy seed coat. The cotyledons (seed leaves) then completely unfurl and, once they are exposed to enough sunlight, the plant can start the work of maturing into its natural form and has a chance at completing its life cycle.

And so it is with Baker’s globe mallow. The seeds need exposure to fire in order to germinate. However, if you ever find yourself with a handful of Baker’s globe mallow seeds that you would like to germinate, you can simulate fire exposure by baking the seeds in the oven for two and a half hours at about 150 degrees Fahrenheit.

Baker’s globe mallow, a wild hollyhock borne in desolate habitats, produces its large, unmistakable rose-purple blooms from June through September in areas that have recently burned. The post-fire bloom is a show that you wouldn’t want to miss. In fact, around here, there is absolutely nothing like it.